SEQUENCE LISTING

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HEARST, John E.
COOK, David

<120> MODIFIED FREE-LIVING MICROBES, VACCINE COMPOSITIONS AND METHODS OF USE THEREOF

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<140> Not Yet Assigned
<141> 2004-02-06

<150> US 60/446,051
<151> 2003-02-06

<150> US 60/449,153
<151> 2003-02-21

<150> US 60/490,089
<151> 2003-07-24

<150> US 60/511,869
<151> 2003-10-15

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<400> 15
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<400> 16
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<210> 17
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<220>
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<400> 17
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<212> DNA
<213> Bacillus anthracis

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<211> 1908
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<213> Murine

<400> 20
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<210> 21
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<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 21
Ser Pro Ser Tyr Ala Tyr His Gln Phe
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<210> 22
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<212> DNA
<213> Artificial Sequence

<220>
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<213> Artificial Sequence

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<210> 24
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<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

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<212> DNA
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<223> PCR Primer

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<210> 26
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<220>
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<400> 26
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<210> 27
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<210> 37
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1 5

<210> 38
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<223> PCR Primer

<400> 43
catataaagg ttccacaatt gccttttc 28

<210> 44
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 44
gaagcagaaa tgaagccaat actcaatc 28

<210> 45
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 45
ggttccacaa ttgccttttc aataatc 27

<210> 46
<211> 6
<212> PRT
<213> Bacillus anthracis

<400> 46
Lys Val Val Lys Asn Lys
1 5

<210> 47
<211> 12
<212> DNA
<213> Bacillus subtilis

<220>
<221> misc_feature
<222> 5, 6, 7, 8
<223> n = A,T,C or G

<400> 47
gaacnnnngt tc 12

<210> 48
<211> 331
<212> PRT
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 48
Met Lys Lys Ile Met Leu Val Phe Ile Thr Leu Ile Leu Val Ser Leu
1 5 10 15
Pro Ile Ala Gln Gln Thr Glu Ala Lys Asp Ala Ser Ala Phe Asn Lys
20 25 30
Glu Asn Ser Ile Ser Ser Met Ala Pro Pro Ala Ser Pro Pro Ala Ser
35 40 45
Pro Lys Thr Pro Ile Glu Lys Lys His Ala Asp Glu Ile Asp Ser Pro
50 55 60
Ser Tyr Val Tyr His Gln Phe Ala Ala Asp Gln Ala Arg Glu Leu Ile
65 70 75 80
Asn Ser Trp Val Glu Ser Gln Thr Asn Gly Ile Ile Arg Asn Val Leu
85 90 95
Gln Pro Ser Ser Val Asp Ser Gln Thr Ala Met Val Leu Val Asn Ala
100 105 110
Ile Val Phe Lys Gly Leu Trp Glu Lys Thr Phe Lys Asp Glu Asp Thr
115 120 125
Gln Ala Met Pro Phe Arg Val Thr Glu Gln Glu Ser Lys Pro Val Gln
130 135 140
Met Met Tyr Gln Ile Gly Leu Phe Arg Val Ala Ser Met Ala Ser Glu
145 150 155 160
Lys Met Lys Ile Leu Glu Leu Pro Phe Ala Ser Gly Thr Met Ser Met
165 170 175
Leu Val Leu Leu Pro Asp Glu Val Ser Gly Leu Glu Gln Leu Glu Ser
180 185 190
Ile Ile Asn Phe Glu Lys Leu Thr Glu Trp Thr Val Leu Gln Glu Leu
195 200 205
Asn Val Thr Val Arg Thr Ser Ser Asn Val Met Glu Glu Arg Lys Ile
210 215 220
Lys Val Tyr Leu Pro Arg Met Lys Met Glu Glu Lys Tyr Asn Leu Thr
225 230 235 240
Ser Val Leu Met Ala Met Gly Ile Thr Asp Val Phe Ser Ser Ser Ala
245 250 255
Asn Leu Ser Gly Ile Ser Ser Ala Glu Ser Leu Lys Ile Ser Gln Ala
260 265 270
Val His Ala Ala His Ala Glu Ile Asn Glu Ala Gly Arg Glu Val Val
275 280 285
Gly Ser Ala Glu Ala Gly Val Asp Ala Ala Ser Val Ser Glu Glu Phe
290 295 300
Arg Ala Asp His Pro Phe Leu Phe Cys Ile Lys His Ile Ala Thr Asn

305 310 315 320
Ala Val Leu Phe Phe Gly Arg Cys Val Ser Pro
325 330

<210> 49
<211> 8
<212> PRT
<213> Gallus gallus

<400> 49
Ser Ile Ile Asn Phe Glu Lys Leu
1 5

<210> 50
<211> 9
<212> PRT
<213> Homo sapien

<400> 50
Val Leu Gln Glu Leu Asn Val Thr Val
1 5

<210> 51
<211> 9
<212> PRT
<213> Homo sapien

<400> 51
Tyr Leu Ser Gly Ala Asn Leu Asn Leu
1 5

<210> 52
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 52
Tyr Leu Ser Gly Ala Asp Leu Asn Leu
1 5